

CHAPTER 4. OCCUPATIONAL HEALTH

- A. **Policy.** It is the policy of the Coast Guard to ensure the health of its personnel in the workplace by establishing and implementing an occupational health program. The purpose of this program is to eliminate occupational conditions and practices which could lead to personal injury, illness or disease, damage to property, or which could adversely affect the Coast Guard's mission capability.
- B. **Purpose and Scope.** The purpose of this chapter is to promulgate policy, standards and guidelines and to assign responsibilities for implementing the Coast Guard Occupational Health Program. The occupational health program pertains to all Coast Guard personnel and civilians and visitors on board Coast Guard facilities. For purposes of this chapter, this program is limited to industrial hygiene, occupational medical monitoring and hearing conservation. This policy includes all Coast Guard facilities including those associated with Coast Guard shore facilities, aircraft and Coast Guard owned or operated vessels.
- C. **Authority.** The principle laws requiring Federal occupational safety and health programs are listed in section 1-D of this manual.
- D. **Definitions.**
1. **Coast Guard Personnel.** All active duty and Reserve military and all civilian personnel who are required or permitted to work for any element of the Coast Guard.
 2. **dB(A).** A sound level reading in decibels as measured on the A-weighted scale of a sound level meter that approximates human hearing.
 3. **Impulse or Impact Noise.** Sound of short duration, usually less than one second, with an abrupt onset and rapid decay. Also, those variations in noise levels that involve maxima (highest readings) at intervals greater than 500 milliseconds. When the intervals are less than 500 milliseconds, the noise is considered continuous.
 4. **Occupationally Exposed.** Unless otherwise specified, a person is considered occupationally exposed for medical monitoring purposes if:
 - a. Actively engaged in any occupation where an industrial hygiene evaluation has shown that exposure exceeds:
 - (1) 50 percent of the Coast Guard exposure standard, without regard to the use of respirators, for 30 or more days per calendar year;

- 4-D-4. a. (2) 84 dB(A) continuous sound pressure level as an 8 hour time weighted average (TWA) for 30 or more days per calendar year; or
- (3) Coast Guard radiation exposure limits.
- b. Actively engaged for 30 or more days per calendar year as fire fighter, resident inspector, pollution investigator, marine safety (general), port safety (general), vessel inspector or marine investigator unless an industrial hygiene evaluation shows that the individual is not being overexposed per 4-D-4.a.(1). These occupations correspond to the civilian classification series 081, military enlisted occupational codes DO and ED and military officer occupational codes 40, 42, 45 and 47 respectively.
5. **Short-Term Exposure Limits (STEL).** STELs are maximum concentrations to which personnel can be exposed for up to 15 minutes without suffering from:
- a. Irritation.
- b. Chronic or irreversible tissue change.
- c. Narcosis that materially reduces work efficiency, increases accident proneness, or impairs self-rescue.
6. **Threshold Limit Values-Time Weighted Average (TLV-TWA).** The time weighted average (TWA) concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect. For hazardous noise, the TWA or dose shall be calculated using a time halving or doubling rate of 4 decibels.
7. **Threshold Limit Values Ceiling (TLV-C).** Threshold ceiling exposure limits are airborne concentrations that should not be exceeded during any part of the working exposure.
8. **Toxic Substance or Harmful Physical Agents.** Any chemical substance or physical stress (noise, heat, cold, vibration, repetitive motion, ionizing and non-ionizing radiation, hypo/hyperbaric pressure, etc.) which:
- a. Is regulated by any Coast Guard standard or Federal law or rule due to a health hazard.
- b. Is listed in the latest printed edition of the NIOSH Registry of Toxic Effects of Chemicals (RTEC).

E. **Occupational Health Standards.** See section 1-K of this manual.

- 4-F. Program Components. For purposes of this chapter, industrial hygiene, occupational medical monitoring and hearing conservation are the principle components of the Coast Guard occupational health program.
- G. Industrial Hygiene. Industrial hygiene as a specialty is concerned with solving industrial health problems by anticipating, recognizing, evaluating and controlling potential health hazards in the occupational environment. As such, it is devoted to the recognition, evaluation and control of those environmental hazards -- chemical, physical, biologic and ergonomic -- that may cause sickness, impaired health or significant discomfort. Occupational health hazards are conditions that may potentially cause legally compensable occupational illness or any condition in the work place that impairs the health of employees sufficiently to make them lose time from work or work at less than full efficiency.
- H. Occupational Medical Monitoring Program (OMMP). Refers to a physical examination program established to monitor the health of Coast Guard personnel working in jobs designated as having high health risk potential to chemical and/or physical agents. It is a nationwide system designed to maintain medical histories, evaluations, and recommended treatment for potentially overexposed Coast Guard personnel.
1. Purpose. The purpose of the program is to enable the Coast Guard to anticipate, and thereby minimize occupational illness among Coast Guard members. This will contribute to the Coast Guard's overall operational readiness. In coordination with safety and occupational health field staff, information from the OMMP will also be used to modify operations so as to minimize employee exposure. In addition, the OMMP will serve as a historical repository of information on Coast Guard personnel exposed to potentially hazardous environmental conditions and will be used for studies directed toward a better understanding of the causes and mechanisms of prevention and care relating to Coast Guard personnel.
 2. Program Objectives. The objectives of the program are to:
 - a. Identify physiological changes related to workplace exposure which enable Safety and Occupational Health field staff to investigate and mitigate employee overexposure.
 - b. Identify occupationally induced diseases at a very early stage prior to permanently incapacitating illness or death.
 - c. Reduce personnel and financial costs related to occupationally-induced disease.

- 4-H-2. d. Identify pre-existing health conditions which, if the individual was placed in a high risk job, would result in an unacceptable level of health risk.

3. Requirements. The requirements of the OMMP program are:

- a. Occupationally exposed personnel shall be identified, enrolled in the OMMP program and be given basic and periodic medical examinations for the duration of their occupational exposure. See 4-D-4 for a definition of occupationally exposed.
- b. Personnel occupationally exposed to known human carcinogens shall remain in the program for the duration of their Coast Guard career.
- c. Personnel occupationally exposed to benzene, asbestos, lead or noise shall be enrolled in the special programs designed for these exposures.

I. Hearing Conservation. The Coast Guard working and living environments contain many high intensity noise sources. Exposure of Coast Guard personnel to high intensity noise damages their hearing, causing a major health and economic impact.

1. Program Requirements. To reduce this impact, the Coast Guard has implemented a hearing conservation program requiring the accomplishment of the following six action elements:

- a. Identify, assess, and post hazardous noise sources.
- b. Determine extent and disposition of personnel exposed.
- c. Engineer methods to abate noise.
- d. Provide and require the use of hearing protectors for all personnel exposed to hazardous noise (fit personnel with hearing protection devices as necessary).
- e. Educate and advise personnel concerning hearing conservation.
- f. Monitor employee hearing acuity using trained audiometric technicians in certified audiometric booths.

2. Noise Standard. For Coast Guard environments, continuous noise levels exceeding 84 dBA Time Weighted Average (TWA) are considered hazardous. See 4-D-2 and 4-D-6 for a definition of dBA and TWA respectively.

4-I-3. Hearing Protective Devices.

- a. Hearing protective devices shall be worn by all personnel when they enter or work in an area where the operations generate noise levels of:
 - (1) greater than 84 dBA continuous sound pressure level;
 - (2) 140 dB peak sound pressure level or greater.
- b. A combination of insert type and circumaural type hearing protective devices (double hearing protection) shall be worn in all areas where noise levels exceed 104 dBA.
- c. In cases where hearing protective devices do not provide sufficient attenuation to reduce the individual's effective exposure level below 84 dBA and engineering controls are impractical, administrative control of exposure time will be necessary.

4. Hearing Conservation Training.

- a. All personnel exposed to hazardous noise shall receive a minimum of one hour of initial Hearing Conservation Training and appropriate refresher training annually thereafter. Documentation of such training (i.e., attendance logs) shall be made part of the command's training records.
- b. Training shall include the following:
 - (1) description of the symptoms, mechanism, and consequences of temporary and permanent hearing loss;
 - (2) elements of the hearing conservation program;
 - (3) proper selection, wearing, and maintenance of hearing protective devices;
 - (4) identification of hazardous noise sources at the command and safe work practices to be used to minimize exposure to hazardous noise;
 - (5) description of audiometric testing which will include explanation of audiometric test results and the procedures involved in testing.

5. Audiometric Testing. Shall be done in accordance with procedures in M6000.1B, U.S. Coast Guard Medical Manual.

4-J. Responsibilities. The following responsibilities are in addition to those responsibilities provided in chapter 1, section 1-F of this manual for all levels of command:

1. Headquarters Responsibilities.

a. Commandant (G-KSE-3).

- (1) Has technical and management oversight responsibility for the OMMP.
- (2) Conducts a review of employee OMMP medical records.
- (3) Tracks and provides feedback to personnel enrolled in the OMMP program.
- (4) Provides field units, MLC's, and districts with periodic reports identifying personnel enrolled in the OMMP program.
- (5) Reviews all major engineering and construction proposals for the purpose of identifying potential hazardous noise sources and incorporating noise abatement criteria into the proposals.

b. Commandant (G-KOM-1). Responsible for final review of all OMMP physical examinations.

2. Field Responsibilities.

a. MLC commander (k):

- (1) Provide environmental and occupational health support to all units under their cognizance.
- (2) During field unit visits, audits or inspections, identify, measure and evaluate personnel exposures to hazardous chemical or physical agents.
- (3) Use the Sound Level Survey Report Form (CG-5139) (RCN-5103-2) to document all sound level survey measurements of Coast Guard facilities/operations. See enclosure (7).
- (4) Use the USCG Industrial Hygiene Workplace Monitoring Report Form (CG-5386) (RCN-5103-1) to document all other exposure measurements. See enclosure (8);

- 4-J-2. a. (5) Enter all exposure data into the computer based Industrial Hygiene Management Information System described in 1-L-4. Provide information from and updates to this local computer system as requested by Commandant (G-KSE).
- (6) Identify and enroll occupationally exposed personnel into the OMMP program. Ensure they are receiving timely and complete basic (baseline) and periodic physical examinations. See paragraph 4-D-4 of this manual for a definition of occupationally exposed.
- (7) Ensure that audit reports provide Commanding Officers and Officers-in-Charge with specific guidance regarding who in the command needs to be medically monitored and for what.
- (8) Ensure that Commandant (G-KSE-3) is notified when personnel are enrolled in or removed from the OMMP program.
- (9) Provide requested hearing conservation training.
- (10) Test and certify audiometric booths for compliance with the American National Standard Criteria for Permissible Ambient Noise During Audiometric Testing (ANSI S3.1-1986).
- b. District Commander. Utilize the district industrial hygienist to:
- (1) During visits to marine safety units, identify, evaluate and measure personnel exposures to hazardous chemical or physical agents. In coordination with the appropriate MLC(k), do the same at other district units as time and resources permit.
- (2) Use the Sound Level Survey Report Form (CG-5139) (RCN-5103-2) to document all sound level survey measurements of Coast Guard facilities/operations. See enclosure (7).
- (3) Use the USCG Industrial Hygiene Workplace Monitoring Report Form (CG-5386) (RCN-5103-1) to document all other exposure measurements. See enclosure (8).
- (4) Enter all exposure data into the computer based Industrial Hygiene Management Information System described in 1-L-4. Provide information from and updates to this local computer system as requested by Commandant (G-KSE).

- 4-J-2. b. (5) In coordination with the appropriate MLC (k), identify and enroll occupationally exposed personnel at district marine safety units into the OMMP program. Ensure they are receiving timely and complete basic (baseline) and periodic physical examinations. See paragraph 4-D-4 of this manual for a definition of occupationally exposed.

c. Unit Commanding Officers/Officers in Charge.

- (1) Ensure that enrolled unit personnel receive timely and complete OMMP physical examinations.
- (2) Ensure that personnel exposed to hazardous noise receive and use appropriate hearing protective devices;
- (3) Request assistance from MLC Commander (k) to:
 - (a) Ensure that all hazardous noise areas and sources of hazardous noise are properly labelled or posted;
 - (b) Ensure that personnel exposed to hazardous noise receive initial and refresher training in hearing conservation.